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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,352	03/15/2002	Yoriaki Matsuzaki	018793-260	2861

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EXAMINER

KLEMANSKI, HELENE G

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 09/15/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,352

Applicant(s)

MATSUZAKI ET AL.

Examiner

Helene Klemanski

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-12, 14-24, 27-32 and 35-40 is/are rejected.
- 7) ☒ Claim(s) 5, 13, 25, 26, 33 and 34 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: .

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an two applications filed in Japan on July 17, 2000 and November 2,. It is noted, however, that applicant has not filed certified copies of the 2000-216066 and 2000-335427 applications as required by 35 U.S.C. 119(b).

Specification

2. The abstract of the disclosure is objected to because it is more than one paragraph in length. Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claims 1, 4, 6, 7, 10, 12, 14, 16-20, 23, 24 and 27-40 are objected to because of the following informalities: in claim 1, line 4, the period needs to be deleted; also in claim 1, line 6, the left bracket should be deleted; further in claim 1, line 11, the left parenthesis should be deleted; further in claim 1, line 16, the right parenthesis should be deleted; further in claim 1, line 23, the left parenthesis should be deleted; further in claim 1, line 25, the right parenthesis should be deleted; lastly in claim 1, line 26, the right bracket should be deleted; in claim 4, line 3, the left parenthesis should be deleted; also in claim 4, line 7, the right parenthesis should be deleted; in claim 6, line 1, the phrase "a dye" should be replaced with the term "said ink"; also in claim 6, line 5, the left

Art Unit: 1755

bracket should be deleted; further in claim 6, line 12, the left parenthesis should be deleted; further in claim 6, line 16, the right parenthesis should be deleted; lastly in claim 6, line 19, the right bracket should be deleted; in claim 7, line 4, the period needs to be deleted; also in claim 7, line 6, the left bracket should be deleted; further in claim 7, line 13, the left parenthesis should be deleted; further in claim 7, line 17, the right parenthesis should be deleted; lastly in claim 7, line 19, the right bracket should be deleted; in claim 10, line 10, the left parenthesis should be deleted; also in claim 10, line 12, the right parenthesis should be deleted; in claim 12, line 3, the left parenthesis should be deleted; also in claim 12, line 7, the right parenthesis should be deleted; in claim 14, lines 1 and 2, the phrase "characterized by containing" should be replaced with the phrase "wherein said ink contains"; in claim 16, line 2, the left parenthesis next to the term "the" should be deleted; also in claim 16, line 5, the right parenthesis should be deleted; in claim 17, line 2, the left parenthesis next to the term "the" should be deleted; also in claim 17, line 5, the right parenthesis should be deleted; in claim 18, line 2, the left parenthesis next to the term "the" should be deleted; also in claim 18, line 5, the right parenthesis should be deleted; in claim 19, line 8, the left parenthesis should be deleted; also in claim 19, line 9, the right parenthesis should be deleted; in claim 20, line 8, the left parenthesis should be deleted; also in claim 20, line 9, the right parenthesis should be deleted; in claim 23, line 2, the left parenthesis next to the term "the" should be deleted; also in claim 23, line 5, the right parenthesis should be deleted; in claim 24, line 2, the left parenthesis next to the term "the" should be deleted; also in

claim 24, line 5, the right parenthesis should be deleted and in claims 27-40, line 1, the phrase "characterized by" should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, the phrase "at least one of the dyes represented by formula (B) according to claim 5, other dyes represent by formula (C)" is considered vague and indefinite since it is unclear as to which dyes are present in the ink composition. Does the ink contain a combination of dyes of the formula (B) and (C) or does the ink contain either a dye of the formula (B) or a dye of the formula (C)? Please clarify.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

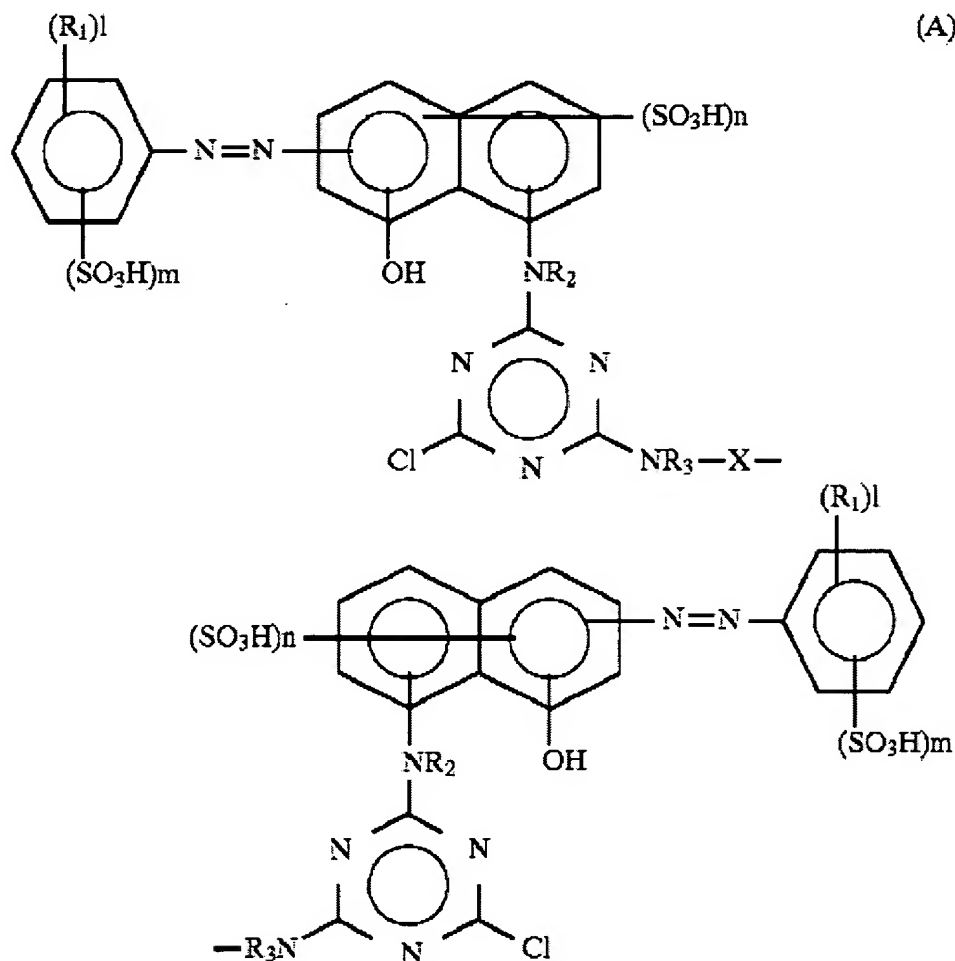
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3, 6 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Ueda et al.

Art Unit: 1755

Ueda et al. teach an ink jet ink composition comprising water and 0.1-5 wt% of a water-soluble dye of the formula

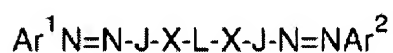


wherein R_1 , R_2 and R_3 are hydrogen, X is a substituted or unsubstituted phenylene, substituted or unsubstituted diphenylene or a substituted or unsubstituted naphthylene, M is an alkaline metal, quaternary ammonium or hydrogen, n is 1-5, m is 1-5 and " l " is 5- m . See col. 1, lines 64-67, col. 2, lines 1-31, col. 4, lines 35-67, the dye structures in col. 5-col. 10, examples 1-8 and claims 1, 11, 21 and 31. The ink jet ink composition as taught by Ueda et al. appears to anticipate the present claims.

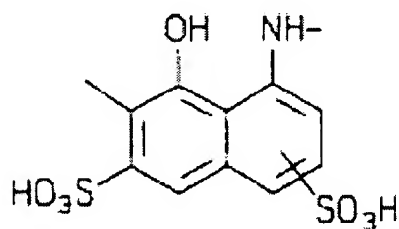
Art Unit: 1755

8. Claims 1-3, 6 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 94/16021.

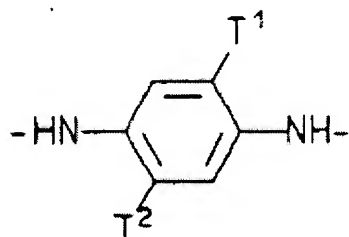
WO 94/16021 teaches azo compounds of the formula



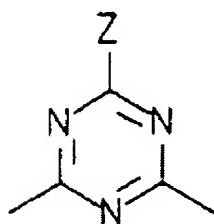
wherein J is the formula



Ar^1 and Ar^2 are each independently aryl, preferably phenyl or naphthyl containing at least two carboxy groups, L is the formula



in which T^1 and T^2 each independently is C_{1-4} alkyl or C_{1-4} alkoxy, X is the formula

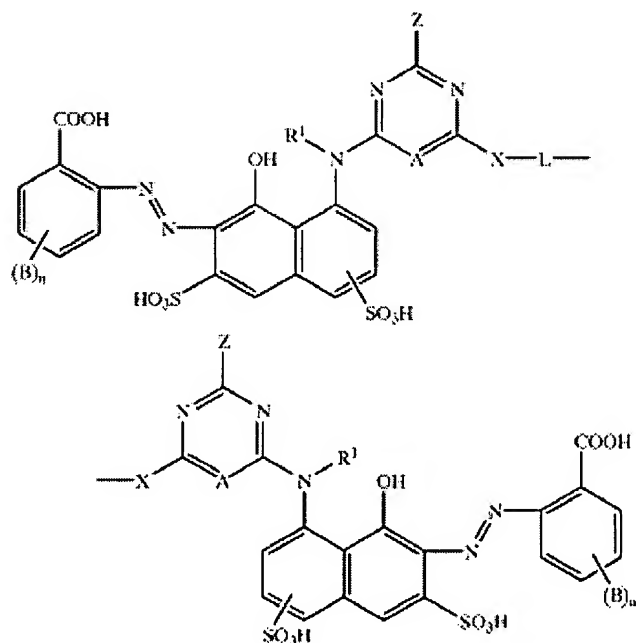


Art Unit: 1755

wherein Z independently is H, halogen, alkyl, NR^1R^2 , SR^3 or OR^3 wherein R^3 is H or alkyl. The azo compounds are useful as colorants in aqueous ink jet ink compositions. See page 1, lines 1-35, page 2, lines 1-20, page 3, lines 3 and 33, page 5, lines 7-26, page 7, lines 1-32, example 1 and claims 1, 2, 4-10, 13, 15 and 16. The azo compounds and the ink jet ink compositions containing them appear to anticipate the present claims.

9. Claims 1, 6-10, 19, 20, 29-32, 39 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 00/15723.

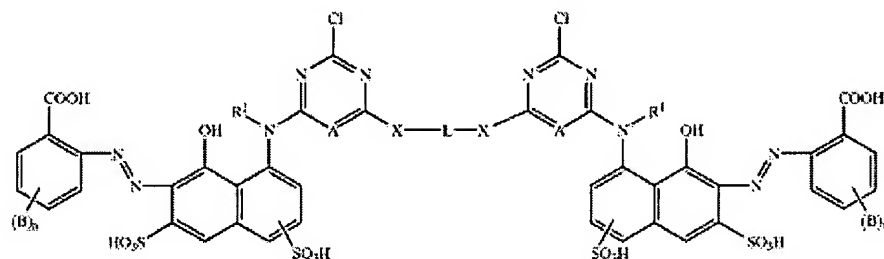
WO 00/15723 teaches an ink jet ink composition comprising a liquid medium such as a mixture of water and an organic solvent and at least one dye of the formula



wherein each A is N, each B is a substituent other than COOH such as SO_3H , L is an optionally substituted alkylene wherein the optional substituents are halo or OH, each Z is OR^3 or a labile atom such as halogen, each X is NR^1 , each R^1 is H, each R^3 is H and

Art Unit: 1755

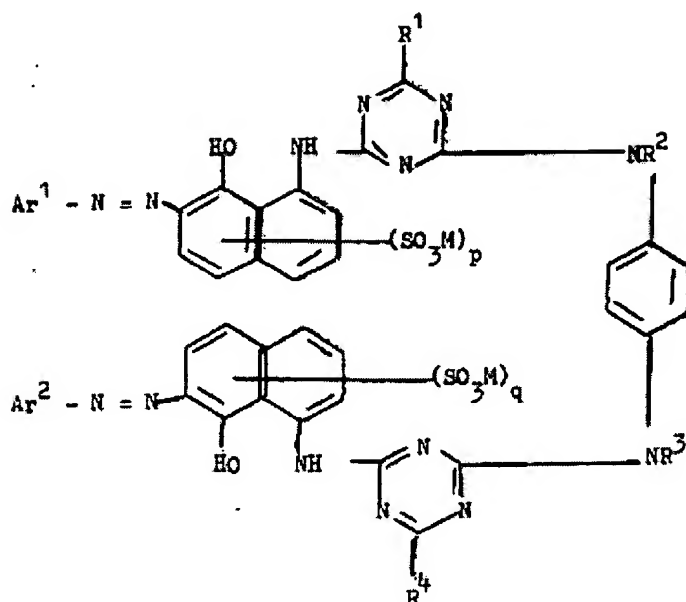
n is 0-4. The dye is prepared by condensing the compound ZH with the compound of the formula



in a liquid medium such as water in the presence of a base (i.e. to increase pH above 9, see examples). After the above reaction, the azo compound may be isolated by precipitating the dye as a salt from the reaction mixture. Unwanted anions may be removed by dialysis, osmosis, ultrafiltration or a combination thereof. See page 1, lines 1-31, page 2, lines 1-5, page 3, lines 15-21, page 5, lines 4-20, page 6, line 32, page 7, lines 8 and 26, page 9, line 15, page 13, lines 1-24, page 14, lines 27 and 28, example 1, Table 2, dyes (16), (17), (19), (24) and (25) and claims 1, 4-10, 12, 13, 15 and 16. The ink jet ink composition as taught by WO 00/15723 appears to anticipate the present claims.

10. Claims 1, 3, 4, 6 and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0325041.

EP 0325041 teach a water-soluble azo dye of the formula



wherein Ar¹ and Ar² independently represent a phenyl or naphthyl group that is optionally substituted with a sulpho group and may be further substituted with alkyl, alkoxy, alkylamino, alkylcarbonylamino, halogen etc., R¹ and R⁴ independently represent OR⁵, R⁵ represents hydrogen, R² and R³ independently represent hydrogen, M represents hydrogen, ammonium or a monovalent metal and p and q independently is 1-3. The above dyes may be prepared by methods that have been disclosed for similar azo dyes. The dyes are suitable as colorants for ink jet ink compositions based upon water and/or organic solvents. See page 3, lines 5-55, page 4, lines 1-24, page 5, lines 8-17, page 6, lines 36-50, example 1 and claims 1, 2, 7, 13 and 14. The water-soluble azo dye and the ink jet ink compositions containing them as taught by EP 0325041 appears to anticipate the present claims.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 4 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 94/16021.

WO 94/16021 is cited and relied upon for the above stated reasons. WO 94/16021 fails to specifically exemplify an azo compound wherein Ar¹ or Ar² is a naphthyl group.

Therefore, it would have been obvious to one having ordinary skill in the art to use the specific azo compound wherein Ar¹ or Ar² is a naphthyl group as claimed by applicants as WO 94/16021 also discloses the use of these azo compounds but fails to show an example incorporating them.

13. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/15723.

WO 00/15723 is cited and relied upon for the above stated reasons. WO 00/15723 fails to specifically exemplify an azo compound wherein Z is a halogen group.

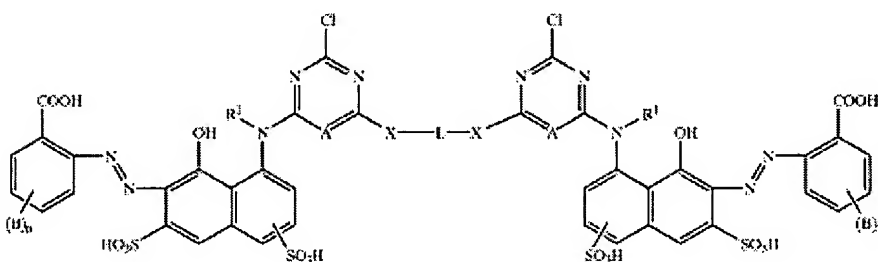
Therefore, it would have been obvious to one having ordinary skill in the art to use the specific azo compound wherein Z is a halogen group as claimed by applicants as WO 00/15723 also discloses the use of these azo compounds but fails to show an example incorporating them.

Art Unit: 1755

14. Claims 7-12, 14, 19-24, 27-32 and 35-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0325041 in view of WO 00/15723.

EP 0325041 is cited and relied upon for the above stated reasons. EP 0325041 fails to specifically exemplify the preparation of the water-soluble azo compound as claimed by applicants.

WO 00/15723 is cited and relied upon for the above stated reasons. WO 00/15723 teaches that the azo dye is prepared by condensing the compound ZH with the compound of the formula



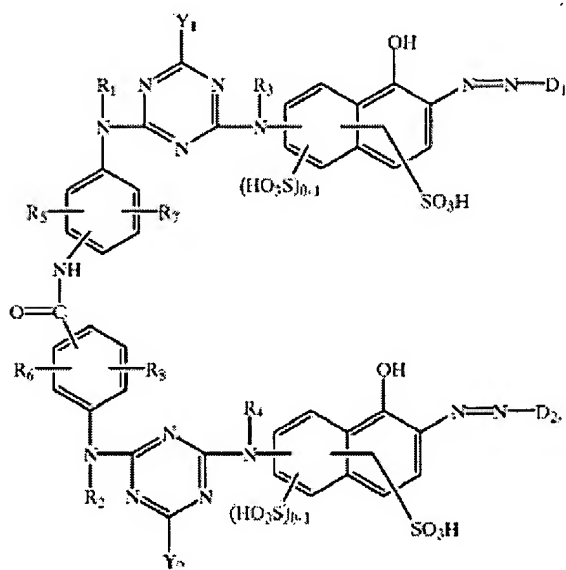
in a liquid medium such as water in the presence of a base (i.e. to increase pH above 9, see examples). After the above reaction, the azo compound may be isolated by precipitating the dye as a salt from the reaction mixture. Unwanted anions may be removed by dialysis, osmosis, ultrafiltration or a combination thereof.

Therefore, it would have been obvious to one having ordinary skill in the art to have prepared the water-soluble azo dye as taught by EP 0325041 by the method of preparing an azo dye as taught by WO 00/15723 since EP 0325041 discloses that the azo dye may be prepared by methods that have already been disclosed for similar azo dyes.

Art Unit: 1755

15. Claims 1-4, 6 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lauk et al.

Lauk et al. teach an azo dye of the formula



wherein R_1 , R_2 , R_3 and R_4 are hydrogen or a substituted or unsubstituted C_{1-4} alkyl, R_5 , R_6 , R_7 and R_8 are C_{1-4} alkyl, C_{1-4} alkoxy, halogen or sulfo, D_1 and D_2 are a substituted or unsubstituted phenyl or naphthyl group and Y_1 and Y_2 are halogen. The azo dye may be used as colorants for ink jet ink compositions. See col. 1, lines 15-51, col. 2, lines 5-45, col. 5, line 65 – col. 6, line 50, col. 8, line 1 – col. 9, line 56, col. 15, lines 35-47, col. 16, lines 49-21, examples 3-5, 8, 10, 11, 15, 17, 18, 23, 25 and claims 1-5 and 10-12. Lauk et al. fails to specifically exemplify an aqueous ink jet ink containing the above azo dyes.

Therefore, it would have been obvious to one having ordinary skill in the art to use the specific azo dyes as claimed by applicants as Lauk et al. also discloses the use

of these azo compounds in aqueous ink jet ink compositions but fails to show an example incorporating them.

Allowable Subject Matter

16. Claims 5, 13, 25, 26, 33 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art teaches or fairly suggests an aqueous ink jet ink composition containing a dye of the formula (B) or a method of preparing the dye of the formula (B) as claimed by applicants.

Conclusion

The remaining references listed on forms 892 and 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the above rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Klemanski whose telephone number is 703-308-3745. The examiner can normally be reached on Monday-Friday 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell can be reached on 703-308-3823. The fax phone numbers for the

Art Unit: 1755

organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Helene Klemanski
Primary Examiner
Art Unit 1755



HK
September 8, 2003